

Name: _____

p1105: Factoring when $a = 1$ (v16)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5 . Focus on finding factor pairs of -24 . Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 - 4x - 32$

2. Factor $x^2 - 17x + 72$

3. Factor $x^2 + 13x + 40$

4. Factor $x^2 - 3x - 54$

5. Factor $x^2 - 2x - 63$

6. Factor $x^2 + 4x - 45$

7. Factor $x^2 + 6x - 27$

8. Factor $x^2 - 12x + 35$

9. Factor $x^2 + 5x + 4$

10. Factor $x^2 + 12x + 35$

11. Factor $x^2 - 11x + 18$

12. Factor $x^2 + 7x + 12$

13. Factor $x^2 + 10x + 16$

14. Factor $x^2 - 7x - 18$

15. Factor $x^2 - 2x - 48$